

WHAT IS CLAIMED IS:

1. In a microscope having an illumination device for illuminating the subject by directing light along an illumination beam path through a main objective of said microscope or in a region of a main objective of said microscope, and a plurality of optical components in said illumination beam path, the improvement comprising:
a mechanism for moving at least one of said plurality of optical components so that a darkening occurs at the subject because of the movement of said at least one optical component.
2. The improvement according to claim 1, wherein said mechanism removes said at least one optical component from said illumination beam path.
3. The improvement according to claim 1, wherein said mechanism changes the position of said at least one optical component in said illumination beam path.
4. The improvement according to claim 2, wherein said plurality of optical components includes a collector lens, and said mechanism includes a manually operable drive system for removing said collector lens from said illumination beam path.
5. The improvement according to claim 2, wherein said plurality of optical components includes a collector lens, and said mechanism includes an electromechanically operable drive system for removing said collector lens from said illumination beam path.

- 5 6. The improvement according to claim 2, wherein said plurality of optical components includes a mirror prism and a light-concentrating optical system fixed thereto for conveying illuminating light through said main objective, and said mechanism removes at least a portion of said light-concentrating optical system from said illumination beam path.
7. The microscope according to claim 6, wherein said mechanism pulls said at least a portion of said light-concentrating optical system from said illumination beam path.
- 10 8. The microscope according to claim 6, wherein said mechanism pivots said at least a portion of said light-concentrating optical system out of said illumination beam path.
- 15 9. The microscope according to claim 1, wherein said plurality of optical components includes an assembly of optical elements in said illumination beam path, and said mechanism removes said assembly from said illumination beam path.
- 20 10. The microscope according to claim 1, wherein said plurality of optical components includes an assembly of optical elements in said illumination beam path, and said mechanism displaces said assembly along said illumination beam path.
- 25 11. A method for darkening an illuminated subject under a microscope having an illumination device with an integrated illumination beam path in which a plurality of optical components are arranged, said method comprising the step of:
moving at least one of said plurality of optical components so that a darkening occurs at the subject because the movement of said at least one optical component causes light to arrive at the subject in a more diffuse or defocused fashion.
12. The method according to claim 11, wherein said step of moving at least one of said plurality of optical components comprises removing a collector lens from said

illumination beam path.

13. The method according to claim 11, wherein said step of moving at least one of said plurality of optical components comprises removing at least a portion of a light-
5 concentrating system from said illumination beam path.
14. The method according to claim 11, wherein said step of moving at least one of said plurality of optical components comprises pivoting a mirror.
- 10 15. The method according to claim 11, wherein said step of moving at least one of said plurality of optical components comprises displacing an assembly of optical elements along said illumination beam path.